REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-5 are pending in the application, Claim 1 amended by the present amendment.

In the outstanding Office Action, Claim 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by Wallentin (U.S. Patent No. 6,347,091); Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallentin in view of Applicants' admitted prior art; and Claims 3-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallentin in view of Kumar (U.S. Patent No. 6,418,148).

Claim 1 is amended to recite steps of "carrying out a communication using the common channel" and "shifting from the...common channel to...the individual channel...when an admission of the shift is possible." Support for this amendment is found in Applicants' originally filed specification.[1] No new matter is added.

Briefly recapitulating, amended Claim 1 is directed to a traffic control method for mobile data communications in a mobile communications system using a common channel in a plurality of individual channels provided such that the common channel is used by a plurality of users together and each individual channel is used exclusively by one user. The method includes carrying out communications using the common channel between a mobile radio terminal and a radio base station. The method also includes carrying out an admission judgment for a shift from the common channel to the individual channel at the radio base station or the mobile radio terminal. When a communications traffic at the mobile radio terminal is shifting from a sparse state to a dense state. The method also includes shifting from the common channel to the individual channel when an admission of the shift is

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[1] Specification page 11, lines 16-34.

possible. The present invention allows for improved communications quality and radio band use efficiency.[2]

Wallentin describes a packet data communications system where the state of a connection is used to specify one of plural different types of radio channels burying the connection over the radio interface. The connection state may also specify other parameters, for example one of plural different mobility management schemes tailored to the selected channel type or channel bit rates. The connection is dynamically adapted to an optimal state based on one or more conditions relating to the connection. In one embodiment a comparison is made with one or more thresholds as the two decide which type of radio channel should bear a connection. Other factors, parameters and conditions maybe employed along with threshold comparisons to select the optimal radio channel type.[3]

Wallentin further describes that at each packet reliable, a measurement unit 72 sends a down link packet notification message to the connection state selector 70 containing the packet arrival time $t_i(k)$, a current amount of data $q_i(k)$ in an incoming packet cube to be transmitted from the network to the mobile station corresponding to this connection, and a measured interference $i_i(k)$ associated with that packet (the uplink interference, for example, be measured by a base station and sent regularly to the mobile station RNC while the down link interference could be measured by the mobile station and sent regularly to the RNC via the bay station). The $i$ refers to an $i_{th}$ connection, and k refers to the $k_{th}$ packet. Therefore, $t_{(k)}$ is the arrival time of packet k during the $i_{th}$ connection. Based on the downlink packet identification messages corresponding to received packets, the network connection state selector 70 may decide to change connection state and sends a change connection state message to the RNC controller 75 with the next connection state. In the context of a CDMA system, if the new connection state is a dedicated radio channel or a temporary dedicated

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[2] Specification at page 28, line 1 through page 29, line 15.
[3] Wallentin, Abstract.

radio channel, the RNC controller allocates a spreading code to the connection and sends

messages to the base stations currently handling the call as well as to the mobile station with

appropriate change of connection state information. Similarly the RNC controller 75 notifies

the mobile station and the base station of the mobility management scheme. Also, a selector

126 receives a predicted time to a next packet arrival from a non-linear predictor 124 and

uses that prediction to determine the next connection state. While the next connection state

may be selected based simply on the predicted time alone, the selector 126 may also take into

account one or more other parameters such as an amount of packets to be sent over the

connection, a service vector, current radio interference, and/or the current connection state.

Typically, a long queue suggests a dedicated channel or a temporary dedicated channel. A

common channel is probably better suited for a short queue. A service vector requiring a

high data rate and/or short delay indicates that a dedicated channel or a temporary dedicated

channel is a better selection. A high radio interference value indicates that a dedicated

channel most likely is preferred, as opposed to a temporary dedicated channel or a common

channel, because temporary dedicated and common channels generate greater interference

than a dedicated channel. Still further, an earlier predicted packet arrival time indicates

selection of a dedicated channel, even if the queue is short, especially if the bearer service

requires a short delay.

However, contrary to the Official Action, Wallentin does not disclose or suggest

Applicants' claimed carrying out an admission judgment for a shift from the common

channel to the individual channel when communications traffic at the mobile radio terminal is

shifting from a sparse state to a dense state. That is, Wallentin describes shifting on the basis

of packet arrival time an amount of packets to be sent over the connection, a service vector

and/or a current connection state. Neither of these parameters correspond to Applicants'

claimed "when a communications traffic at the mobile radio terminal is shifting from a sparse state to a dense state."

Furthermore <u>Wallentin</u> does not disclose or suggest shifting from the common channel to the individual channel <u>when the admission of shift is possible</u>. As described in Applicants' originally filed specification, the determination of whether a shift is possible is function of whether traffic in the service area is large or small.[4] That is, when traffic increases on a common channel and when an individual channel can be used (i.e., the traffic is not too large for the individual channel), communications are shifted from the common to the individual channel. <u>Wallentin</u> fails to disclose or suggest any determinations that are based on the possibility of a shift that is based on whether the traffic in the service area is large or small.

MPEP § 2131 notes that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in "at least one of two-digit, three-digit, or four-digit" representations, was held anticipated by a system that offsets year dates in only two-digit formats). See also MPEP § 2131.02. "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because <u>Wallentin</u> does not disclose or suggest all

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[4] Specification, page 12 lines 17-26; Figure 4, step S13.

the features recited in Claim 1, <u>Wallentin</u> does not anticipate the invention recited in Claim 1, and all claims depending therefrom.

Applicants have considered the remaining applied references and submit these references to not cure the deficiencies of <u>Wallentin</u>. As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claim 1, Applicants submit the inventions defined by Claim 1, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.[5]

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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[5] MPEP § 2142 "…the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."